

II. Response to Species Restriction

The Examiner further requires Applicant to elect a single peptide sequence from sequences identified as SEQ ID NOS:2, 5, 6, 7, 8, 9, 10. The Examiner alleges support for this restriction is found

1. since "[e]ach of the different peptide sequences are independent and distinct because no common structural or functional properties are shared; and
2. in the Nov. 19, 1996 Notice in the Official Gazette (hereinafter "the Notice).

Applicants respectfully traverse this species restriction and request reconsideration, for the following reasons.

First, and with respect to point 1 above, the Examiner is directed to pages 16-17 of the application where a brief description of the sequences is provided. SEQ ID NO:2 is an amino acid sequence having 172 amino acid residues. SEQ ID NOS:5, 6, 7, 8, 9, 10 are each a fragment of SEQ ID NO:2, typically having less than about 40 residues. For example, SEQ ID NO:5 corresponds to residues 1-37 of SEQ ID NO:2. SEQ ID NO:6 corresponds to amino acid residues 34-64 of SEQ ID NO:2. SEQ ID NOS: 7, 8, 9, 10 are also fragments of SEQ ID NO:2.

Thus, the Examiner's assertion that each of the sequences have no common structural or functional properties is incorrect, since the claimed sequences are distinctly related both in structure and function.

Second, and with respect to point 2 above, the Notice in the Official Gazette on which the Examiner relies is most pertinent to nucleic acid sequences. Here, the sequences are amino acid (protein) sequences. To the extent the notice is even applicable to the presently claimed protein sequences, the Notice indicates that "up to ten (10) independent and distinct nucleotide sequences will be examined in a single application without restriction." "It has been determined that normally ten sequences constitute a reasonable number for examination purposes" (the Notice, section II, third paragraph; MPEP 803.04). Here, Applicants set forth in the claims just seven protein sequences; and, moreover, sequences that are structurally related.

The Notice specifies that "In some exceptional cases, the complex nature of the claimed material, for example, a protein amino acid sequence reciting three dimensional folds, may necessitate that the reasonable number of sequences to be selected be less than ten (10)" (the Notice, section II, fourth paragraph). The present case is certainly not a "complex" amino acid sequence, given that six of the seven claimed sequences have fewer than 40 amino acid residues.

Furthermore, Applicants note that the seven claimed sequences are presented as a Markush group. MPEP 803.02 indicates that "[i]f the members of the Markush group are sufficiently few in number or so closely related that a search and examination can be made without serious burden, the examiner must examine all members of the Markush group in the claim on the merits, even though they are directed to independent and distinct inventions. "It is improper for the Office to refuse to examine that which applicants regard as their invention, unless the subject matter lacks unity of invention." "Broadly, unity of invention exists where compounds included in a Markush group (1) share a common utility, and (2) share a substantial structural feature disclosed as being essential to that utility." Here, the sequences in the Markush group (1) share a common utility of activity for inhibiting viral replication; and (2) are structurally related given that six of the sequences are fragments of one sequence.

Accordingly, Applicants respectfully request reconsideration of the species restriction on the grounds that the presently claimed sequences are less than ten in number, are structurally and functionally related, are not "complex" as defined by sequences reciting three dimensional folds, and fall within accepted Markush practice.


Should Applicants' request for reconsideration be denied, Applicants further request clarification that that if the generic claim (presently elected claim 66) is found allowable after examination based on a single elected species, then Applicant is entitled to consideration of the non-elected species if presented in dependent form or otherwise including the limitations of the allowed generic claim, in accord with 37 CFR 1.141.

In compliance with 37 CFR 1.143, although Applicants disagree with the species restriction, Applicants understand a provisional election of species must be made for this response to be considered responsive. Accordingly, Applicants provisionally elected SEQ ID NO:2.

The Examiner is invited to call the undersigned at (650) 838-4402 as needed to further prosecution.

Respectfully submitted,

Date: April 22, 2002


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